

January 27, 2017

BY RESS & Courier

Ms. Kristen Walli
Board Secretary
Ontario Energy Board
Suite 2700, 2300 Yonge Street
Toronto, Ontario
M4P 1E4

Dear Ms. Walli:

**Re: Union Gas Limited (“Union”)
Sarnia Expansion Project
Board File # EB-2014-0333**

Further to the Ontario Energy Board’s Decision for the above noted project in particular 1.5 and 3.3 of the Conditions of Approval, attached please find the Post Construction Financial Report and the Final Monitoring Report.

Sincerely,

[original signed by]

Shelley Bechard
Administrative Analyst, Regulatory Projects

cc: Zora Crnojacki
Nancy Marconi
Regulatory Library

POST CONSTRUCTION FINANCIAL REPORT**SARNIA EXPANSION PROJECT**

In compliance with the Ontario Energy Board Order EB-2014-0333 and condition 1.5, the following is a report on the capital pipeline costs for the Sarnia Expansion Project.

The project actual costs were \$15,814,599 or 35% lower than the estimated costs. The following explains the significant variances.

Description		Filed Costs EB-2014-0333	Actual Costs	\$ Variance	% Variance
Pipeline and Equipment					
	4.8 kms of NPS 20	\$1,300,000	\$1,079,665	-\$220,335	-17% ⁽¹⁾
	Valves, Fittings and Miscellaneous Material	\$1,031,000	\$503,039	-\$527,961	-51% ⁽²⁾
	Total Pipeline and Equipment	\$2,331,000	\$1,582,704	-\$748,296	-32%
Construction and Labour					
	Lay 4,800 m NPS 20 Steel Pipe Miscellaneous Contract Labour	\$8,669,000	\$7,025,966	-\$1,643,034	-19% ⁽³⁾
	Company Labour, Inspection, X-Ray, Construction Survey, Legal, Environmental, Archeology, and Permitting	\$3,594,000	\$1,672,334	-\$1,921,666	-54% ⁽⁴⁾
	Easements, Lands, Damages & Regulatory	\$1,150,000	\$368,373	-\$781,627	-68% ⁽⁵⁾
	Total Construction and Labour	\$13,413,000	\$9,066,673	-\$4,346,327	-32%
Subtotal Estimated Pipeline Capital Costs					
	Contingencies	\$2,362,000	\$0	-\$2,362,000	-100% ⁽⁶⁾
	Interest During Construction	\$261,000	\$82,066	-\$178,934	-69% ⁽⁷⁾
	Total Estimated Pipeline Capital Costs	\$18,367,000	\$10,731,443	-\$7,635,557	-42%
Station Equipment and Labour					
	Station Equipment	\$2,155,000	\$1,815,885	-\$339,115	-16% ⁽⁸⁾
	Construction and Labour	\$2,348,000	\$2,743,891	\$395,891	17% ⁽⁹⁾
	Company Labour, Inspection, X-Ray, Construction Survey, Legal, Environmental, Archeology, and Permitting	\$490,000	\$420,397	\$69,603	-14%
	Easements, Lands, Damages & Regulatory	\$105,000	\$58,795	-\$46,205	-44% ⁽¹⁰⁾
	Subtotal Station Equipment, Construction and Labour	\$5,098,000	\$5,045,688	-\$59,033	-1%
	Contingencies	\$765,000	\$0 ⁽¹¹⁾	-\$765,000	-100% ⁽¹¹⁾
	Interest During Construction	\$88,000	\$44,189	-\$43,811	-50% ⁽¹²⁾
	Total Estimated Station Capital Costs	\$5,951,000	\$5,083,156	-\$867,844	-15%
Total Project Costs		\$24,318,000	\$15,814,599	-\$8,503,401	-35%

- (1) ,(2) &(8) Actual costs of Material and Equipment for the Pipeline and the Station were lower than the original estimates which were based on historical average unit cost. Costs for Pig Receiver equipment were also transferred to the Station costs reflecting an accurate cost allocation.
- (3) & (4) Increased productivity during construction contributed to overall reduction in contractor and company costs as well as all construction support services.
- (5) Pipeline was predominantly installed within the public road allowance eliminating the need for private permanent and temporary easements. Working within the road allowance also reduced damage payments. . Original estimates included costs for an oral OEB hearing procedure which did not occur.
- (6) & (11) Contingencies were estimated as required for unforeseen expenditures but were not required for his project.
- (7) & (12) Interest During Construction was significantly lower than estimated due to the deferral of material ordering from 2014 to 2015 and the overall reduction in other budget items. The decrease reflects timing of actual incurred costs.
- (9) Design changes and scope increases extended the station construction duration which has resulted in cost increases including all construction support services.
- (10) The fee simple purchase price of the Station site was less than estimated.

SARNIA EXPANSION PIPELINE PROJECT

FINAL MONITORING REPORT

Prepared by: Union Gas Limited
Environmental Planning
January 2017

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1.0 INTRODUCTION

This Final Monitoring Report is provided in compliance with the Ontario Energy Board (“Board”) Order EB-2014-0333 granting Union Gas Limited (“Union”) “Leave to Construct” approximately 4.8 kilometres of Nominal Pipe Size (NPS) 20 inch diameter steel natural gas pipeline in the Township of St. Clair, in the County of Lambton.

The pipeline commenced at Union’s Payne Station on Ladysmith Road and proceeded north on the east side of the road to Rokeby Line where it proceeded west on the north side of the road to a point just east of the CNR railway. The pipeline then turned south to cross Rokeby Line and entered the Novacor Corunna Station where it tied into the Sarnia Industrial Line. A map of the pipeline route is included in Appendix A.

The requirements for and details of this report are outlined in the specific conditions issued by the Board in its Order dated February 26, 2015 as listed below. The Conditions of Approval can be found in Appendix B.

Accordingly, the purpose of this Final Monitoring Report is to fulfill these conditions.

1.0 Condition 1.1

Union Gas Limited (“Union”) shall construct the facilities and restore the land in accordance with its application and evidence filed in EB-2014-0333 except as modified by this Order and these Conditions of Approval.

Condition 1.3

Union Gas shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee (“OPCC”) review.

Condition 1.4

Union Gas shall advise the OEB's designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the OEB or its designated representative. In the event of an emergency, the OEB shall be informed immediately after the fact.

2.0 Condition 2.4

Union Gas shall furnish the Board's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the OEB's Order.

3.0 Condition 3.1

Both during and after construction, Union shall monitor the impacts of construction, and shall file four copies of both an interim and final monitoring report with the OEB. The interim monitoring report shall be filed within six months of the in-service date and the final monitoring report shall be filed within fifteen months of the in-service date. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.

Condition 3.2

The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of any mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

4.0 Condition 4.1

Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, and shall provide an affidavit that all such approvals, permits, licences, and certificates have been obtained.

2.0 BACKGROUND

Union was granted approval to construct the Sarnia Expansion Project on February 26, 2015. Construction was initiated on May 25, 2015 with the pipeline placed into service and cleanup for the year completed on October 31, 2015. Construction progressed from Union's Payne Compressor Station Transmission Station in a northerly direction with the following order of operations: topsoil removal, stringing, welding, joint coating, trenching, directional drilling, lowering-in, tie-ins, backfilling, testing and clean-up.

Union returned to the right-of-way in spring 2016 to complete the following activities: repair any subsidence on the right-of-way, ensure there is adequate stability and re-vegetation on all non-agricultural lands, perform a general overview of the right-of-way and complete any additional clean-up that may be required.

3.0 POTENTIAL IMPACTS AND MITIGATION

3.1 Condition 1.1

Union Gas Limited ("Union") shall construct the facilities and restore the land in accordance with its application and evidence filed in EB-2014-0333 except as modified by this Order and these Conditions of Approval.

Union has complied with all conditions imposed by the Board during construction of the pipeline and has restored the land according to the evidence in support of its application.

3.2 Condition 1.3

Union Gas shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee (“OPCC”) review.

Union has implemented all recommendations and mitigation measures outlined in the Environmental Study Report (ER) along with all directives identified by the OPCC.

3.3 Condition 1.4

Union Gas shall advise the OEB’s designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the OEB or its designated representative. In the event of an emergency, the OEB shall be informed immediately after the fact.

There were no changes to construction or restoration procedures during this project.

3.4 Condition 2.4

Union Gas shall furnish the Board’s designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the OEB’s Order

This Final Monitoring Report as well as the previously filed Interim Monitoring Report shall confirm that the work has been performed according to the Board’s Order.

3.5 Condition 3.1

Both during and after construction, Union shall monitor the impacts of construction, and shall file four copies of both an interim and final monitoring report with the OEB. The interim monitoring report shall be filed within six months of the in-service date and the

final monitoring report shall be filed within fifteen months of the in-service date. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.

3.1.1 Report Circulation

Four (4) copies of this Final Monitoring Report are provided to the Board.

3.1.2 Landowner Concerns

Union's complaint tracking system, which identifies the current status of landowner complaints received as a result of pipeline construction, was/is in effect.

A complaint is identified as a concern raised by a landowner, which has not been resolved to the landowner's satisfaction within three (3) working days. There were no complaints entered into the complaint tracking system. During construction, issues that were minor in nature were raised to Union and their contractor. These were dealt with by Union or the Contractor in an expeditious manner.

Union will continue to monitor the state of the land and environment and will address any additional landowner concerns, if they should arise.

3.6 Condition 3.2

The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of any mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

The entire right of way and in particular areas in close proximity to the watercourses were checked for stability, subsidence and vegetation re-establishment in spring of

2016 and found to be successfully rehabilitating and protected with proper sediment control devices to aid in the rehabilitation process. No deficiencies in compliance were identified.

3.2.1 Monitoring Programs

The previously filed Interim Monitoring Report provides a description of the successfully completed monitoring programs (Archaeology, Watercourses, Tree Replacement) undertaken prior to, during and following construction to monitor the effects of construction.

4.0 Condition 4.1

Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, and shall provide an affidavit that all such approvals, permits, licences, and certificates have been obtained.

Union Gas obtained the following environmental permits for construction:

St. Clair Region Conservation Authority - Watercourse Crossings

- For Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Ontario Regulation 148/06.
- Application for Permit No. 10941

Ministry of Natural Resources – Species at Risk

- Letter of Advice – AYL-L-034-13

5.0 SUMMARY

This Final Monitoring Report has been prepared as per conditions in the Board Order EB-2014-0333. The report provides an outline of Unions' compliance with the commitments of its witnesses, the measures implemented during construction to minimize disturbance to the environment and a description of Unions' monitoring programs. It is anticipated that these measures will effectively eliminate any long-term impacts to the environment.

Appendix A

Location Map

GENERAL LOCATION MAP

SARNIA EXPANSION PIPELINE PROJECT



St-Clair-Parkway-

-Rokeby-Line-

SIL

★ Payne

- Moore Line

Greenfield-Road-

Highway-40.

Ladysmith Road -

Legend



Payne Storage Facility "Payne"



Sarnia Industrial Line "SIL"



Pipeline Route

Existing Features

—— Major Road

—— Local Road

—+— Railway

Base features produced under license with the Ontario Ministry of Natural Resources © Queen's Printer for Ontario, 2014.

0 0.25 0.5
km



Appendix B

Conditions of Approval

EB-2014-0333

Union Gas Limited Leave to Construct Application

Conditions of Approval

1 General Requirements

- 1.1 Union Gas Limited (Union) shall construct the facilities and restore the land in accordance with its application and the evidence filed in EB-2014-0333 except as modified by this Order and these Conditions of Approval.
- 1.2 Unless otherwise ordered by the OEB, authorization for Leave to Construct shall terminate December 31, 2015, unless construction has commenced prior to that date.
- 1.3 Union shall implement all the recommendations of the Environmental Report filed in the pre-filed evidence, and all the recommendations and directives identified by the Ontario Pipeline Coordinating Committee (OPCC) review.
- 1.4 Union shall advise the OEB's designated representative of any proposed material change in construction or restoration procedures and, except in an emergency, Union shall not make such change without prior approval of the OEB or its designated representative. In the event of an emergency, the OEB shall be informed immediately after the fact.
- 1.5 Within 15 months of the final in-service date, Union shall file with the OEB Secretary a Post Construction Financial Report. The Report shall indicate the actual capital costs of the project and an explanation for any significant variances from the estimates filed in this proceeding.

2 Project and Communications Requirements

- 2.1 The OEB's designated representative for the purpose of these Conditions of Approval shall be the Manager, Natural Gas Applications.

- 2.2 Union shall designate a person as project engineer and shall provide the name of the individual to the OEB's designated representative. The project engineer will be responsible for the fulfillment of the Conditions of Approval on the construction site. Union shall provide a copy of the Order and Conditions of Approval to the project engineer, within seven days of the OEB's Order being issued.
- 2.3 Union shall give the OEB's designated representative and the Chair of the OPCC ten days written notice in advance of the commencement of the construction.
- 2.4 Union shall furnish the OEB's designated representative with all reasonable assistance for ascertaining whether the work is being or has been performed in accordance with the OEB's Order.
- 2.5 Union shall file with the OEB's designated representative notice of the date on which the installed pipelines were tested, within one month after the final test date.
- 2.6 Union shall furnish the OEB's designated representative with five copies of written confirmation of the completion of construction. A copy of the confirmation shall be provided to the Chair of the OPCC.

3 Monitoring and Reporting Requirements

- 3.1 Both during and after construction, Union shall monitor the impacts of construction, and shall file four copies of both an interim and a final monitoring report with the OEB. The interim monitoring report shall be filed within six months of the in-service date, and the final monitoring report shall be filed within fifteen months of the in-service date. Union shall attach a log of all complaints that have been received to the interim and final monitoring reports. The log shall record the times of all complaints received, the substance of each complaint, the actions taken in response, and the reasons underlying such actions.
- 3.2 The interim monitoring report shall confirm Union's adherence to Condition 1.1 and shall include a description of the impacts noted during construction and the actions taken or to be taken to prevent or mitigate the long-term

effects of the impacts of construction. This report shall describe any outstanding concerns identified during construction.

- 3.3 The final monitoring report shall describe the condition of any rehabilitated land and the effectiveness of any mitigation measures undertaken. The results of the monitoring programs and analysis shall be included and recommendations made as appropriate. Any deficiency in compliance with any of the Conditions of Approval shall be explained.

4 Other Approvals

- 4.1 Union shall obtain all other approvals, permits, licences, and certificates required to construct, operate and maintain the proposed project, and shall provide an affidavit that all such approvals, permits, licences, and certificates have been obtained.

Appendix C

Photograph Inventory



Following chisel plowing of the subsoil to relieve compaction, the topsoil is replaced in this case on an agricultural field.



Once the topsoil has been replaced it is disced to break up large pieces of soil.



The fields were returned to productive agricultural land for the 2016 growing season.



A few fields on the north side of Rokeby Line were fallow and not in agricultural production. The same procedures of soil conservation were employed.



Once the topsoil was replaced and compaction relieved, the area was disced and seeded with a grass mixture



The site above was considered totally re-vegetated in the fall of 2016